

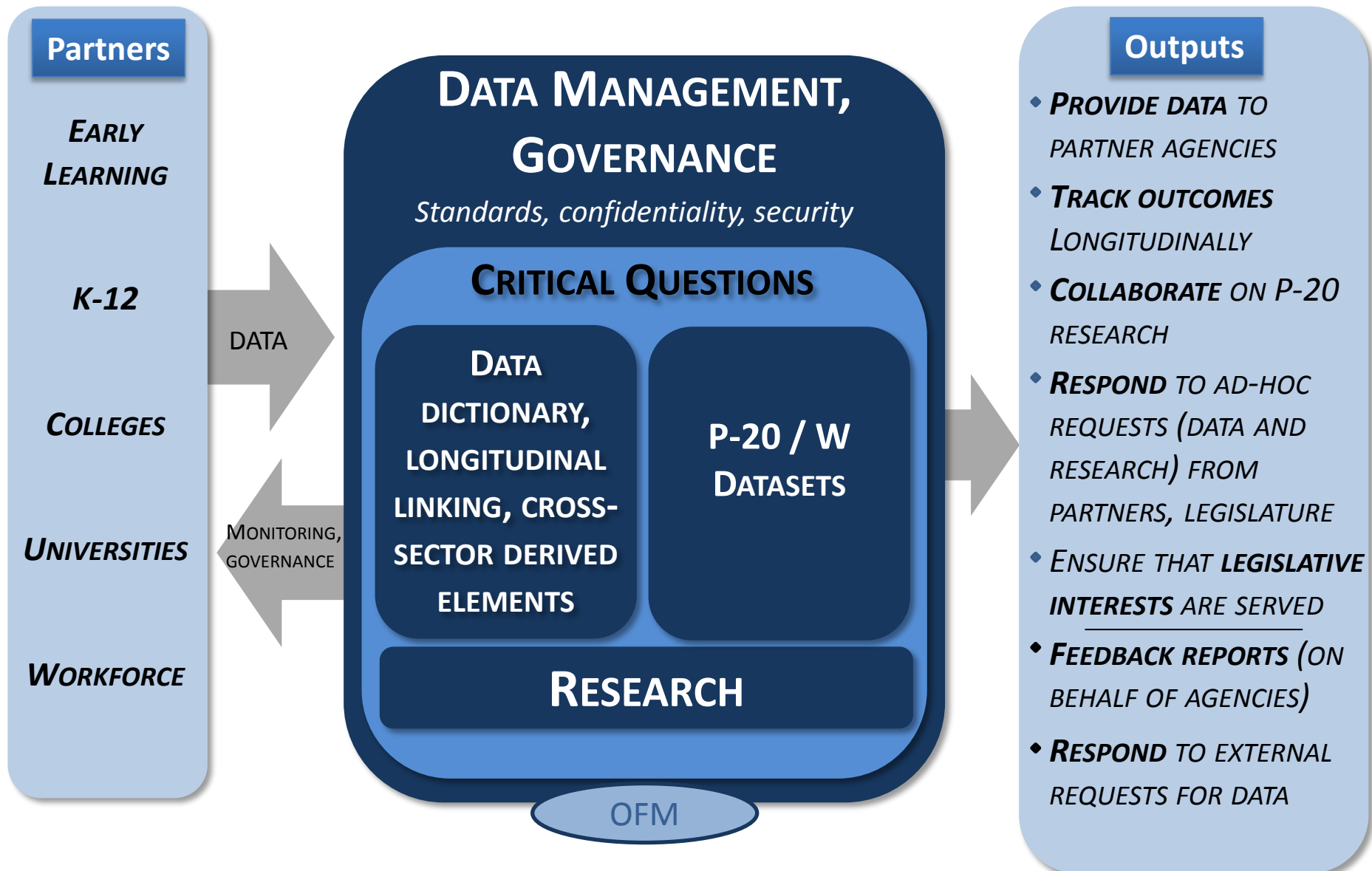
K-12 AND P-20 WORKFORCE CONNECTIONS

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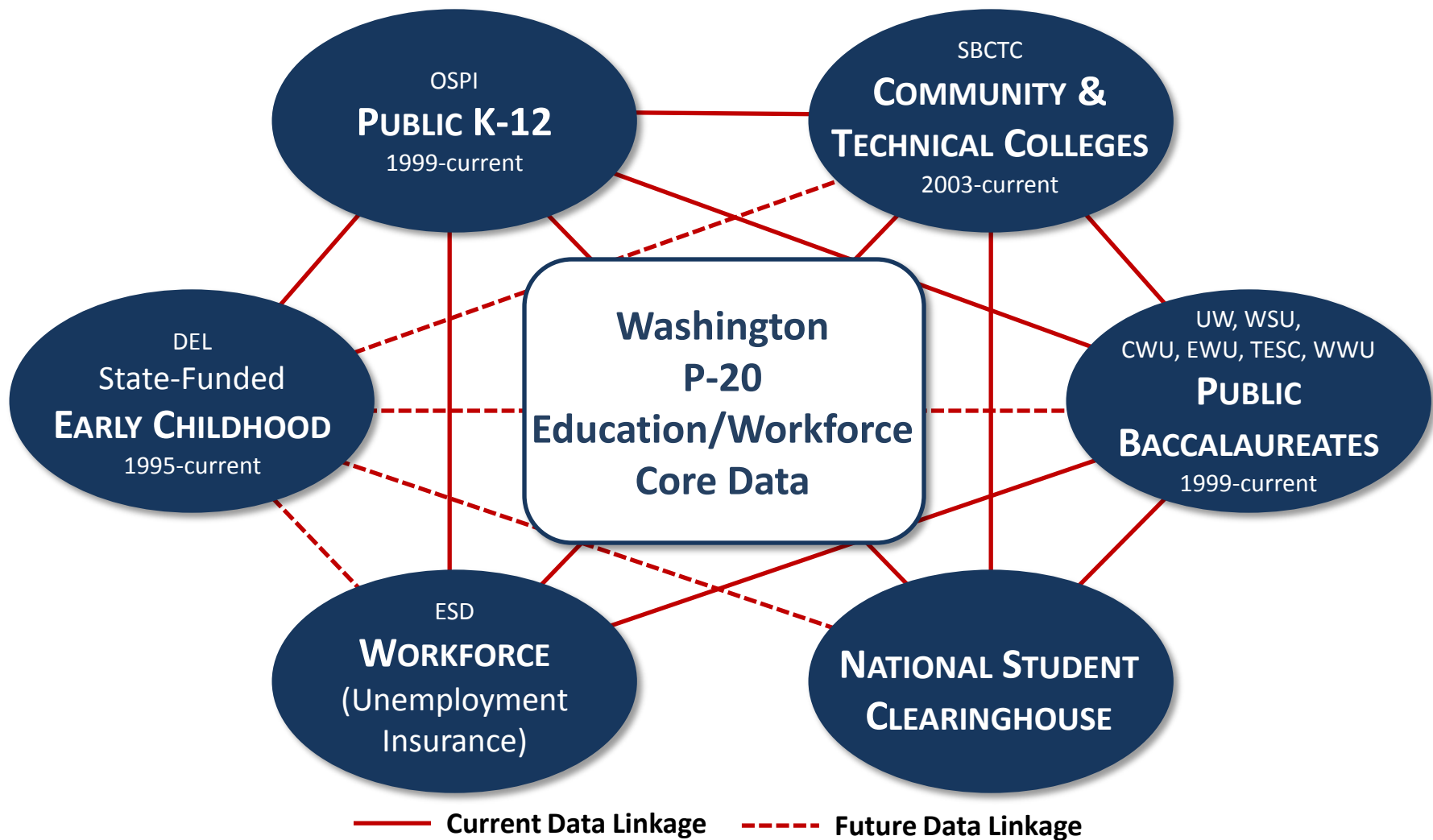
National Forum on Education Statistics
Winter Forum Meeting
February 21, 2011



EDUCATION RESEARCH & DATA CENTER



P-20 LONGITUDINAL DATA ELEMENTS



OSPI = Office of Superintendent of Public Instruction
DEL = Department of Early Learning
ESD = Employment Security Department
SBCTC = State Board for Community & Technical Colleges

UW = University of Washington
WSU = Washington State University
CWU = Central Washington University

EWU = Eastern Washington University
TESC = The Evergreen State College
WWU = Western Washington University



WHY LINK TO WORKFORCE INFORMATION?

EMPLOYMENT STATUS of students (high school and postsecondary):

- ♦ How many students are employed during the school year?
- ♦ How many hours per week do they work?
- ♦ How much do they earn?
- ♦ How does workforce participation relate to grades, postsecondary enrollment, persistence in postsecondary enrollment?



WHY LINK TO WORKFORCE INFORMATION?

Employment as an **OUTCOME**:

- ♦ Do graduates enter the workforce immediately upon graduation?
- ♦ How many college graduates remain in the state for work?
- ♦ How do employment and enrollment after high school relate to employment patterns established during high school?
- ♦ What are the workforce outcomes for completers of a particular program in my school?
(Career/Technical Education, for example)

WHERE ARE THE WORKFORCE DATA?

- ♦ Education data sources include K-12 student information systems and P-20 data from other sectors (SSN required for linking to workforce)
- ♦ Workforce data from the state agency administering the Unemployment Insurance program (wage and claimant data)
- ♦ Labor Market Information (LMI) directors are helpful in arranging for linking.

www.bls.gov/bls/ofolist.htm



TIMING OF UI EARNINGS DATA AVAILABILITY

UI Earnings data is processed on a quarterly schedule.

Current Year											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Quarter 1			Quarter 2			Quarter 3			Quarter 4		
Prior year Quarter 4 data submitted by employer and processed by ESD			Current year Quarter 1 data submitted by employer and processed by ESD			Current year Quarter 2 data submitted by employer and processed by ESD			Current year Quarter 3 data submitted by employer and processed by ESD		
Prior year Quarter 3 data available for research			Prior year Quarter 4 data available for research			Current year Quarter 1 data available for research			Current year Quarter 2 data available for research		

THE LINKING PROCESS

WASHINGTON STATE VERSION

ERDC prepares a file for matching that contains required IDs only and loads the file to the ERDC secure file transfer (SFT) utility.

ERDC staff member, with SFT password, visits LMI office and retrieves matching file. LMI staff member runs the match process.

ERDC staffer moves the matching file, which now contains UI data, to the ERDC SFT server and confirms that all ERDC files are removed from LMI Office computers.

ERDC staff attach P-20 ID to UI records and remove original ID prior to using the UI data files for analysis.

ERDC policy is to use SFT process (encryption in transit and encryption at rest) for all data transfers involving personally identifying information. Mobile storage devices of any type are never used for data storage or transfer.



WORKFORCE ELEMENTS: UI EARNINGS

UI **WAGE RECORD** contains:

- ♦ Year and quarter of earnings
- ♦ Employer account number
- ♦ Employee social security number
- ♦ Name (variable)
- ♦ Wages paid (earnings)
- ♦ Hours worked (reported in few states)

EMPLOYER CHARACTERISTICS can be added to the wage record:

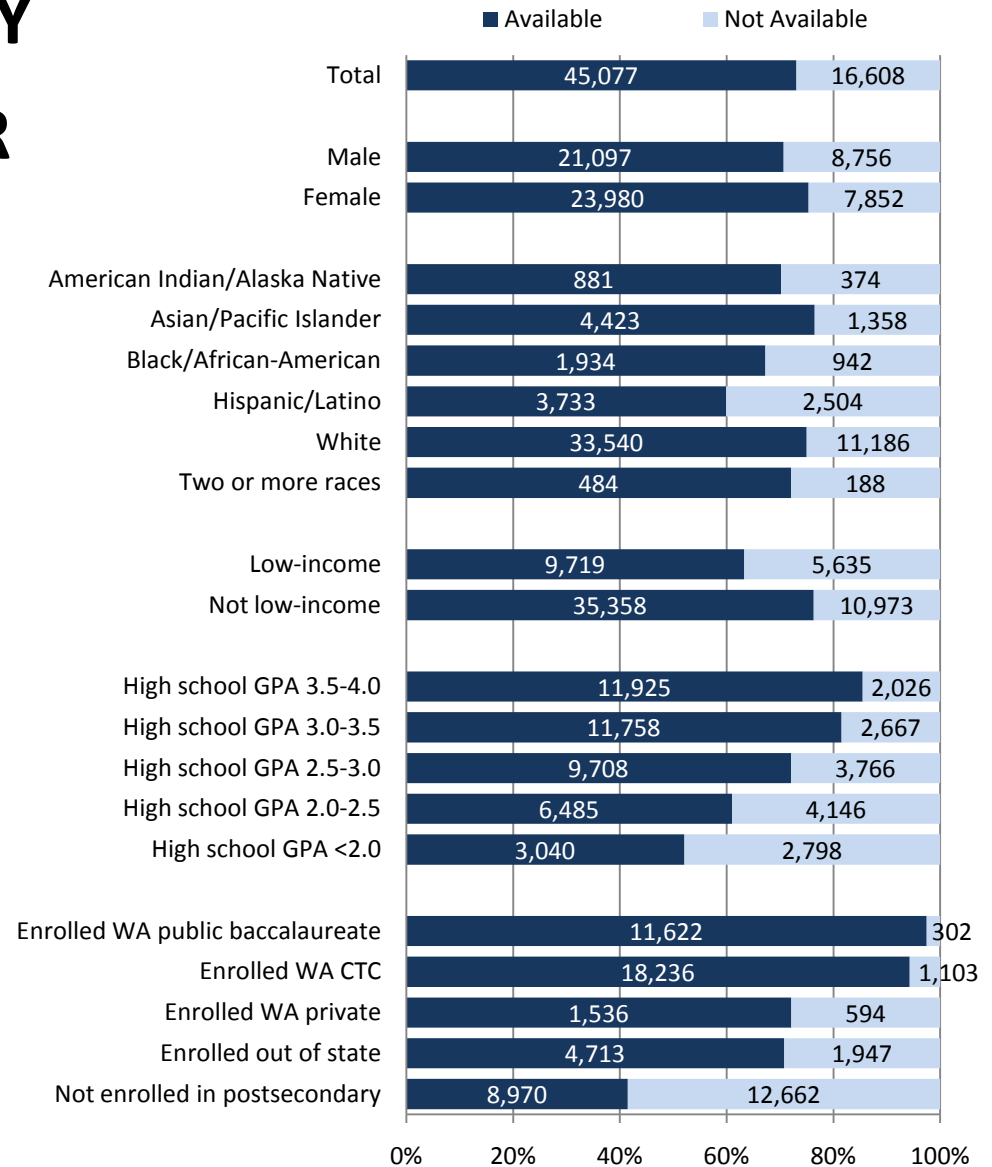
- ♦ North American Industry Classification System (NAICS) code
- ♦ Ownership (Federal, State, Local, International, Private)
- ♦ Size of firm

AVAILABILITY OF KEY LINKING IDENTIFIER

2009 High School graduates

P-20 SOURCES

- ◆ Student Information System
- ◆ Postsecondary enrollment records
- ◆ Other administrative data





APPLICATION: CTE FOLLOW-UP

5S1 Secondary Placement

- ♦ **Numerator:** Number of CTE concentrators leaving secondary education and placed in post-secondary education/advanced training, military, or **EMPLOYMENT** in a specific post-exit quarter.
- ♦ **Denominator:** Number of CTE concentrators who left secondary education during the reporting year.

HIGH SCHOOL GRADUATES, 2009

WASHINGTON STATE

	COUNT	PERCENT OF TOTAL
Total regular high school graduates, 2009 (most of 2008-09 cohort)	61,685	
Total evaluated for workforce participation (73% of grads)	45,077	100.0%
Total with earnings	34,071	75.6%
Total with earnings during last two years of high school*	28,159	62.4%
Earnings during school year	25,638	56.9%
Earnings during summer 2008 only	2,521	5.6%
Earnings post-high school*	25,505	56.6%

*These two categories are not mutually exclusive, so totals may add to more than 100%.

Source: "Workforce Participation: Washington State High School Graduates, 2008-09" Washington Education Research & Data Center, February 2011.
<<http://www.erd.wa.gov/briefs/>> (forthcoming)

EMPLOYMENT BY INDUSTRY

DURING LAST TWO YEARS OF HIGH SCHOOL

WASHINGTON STATE HIGH SCHOOL GRADUATES, 2009

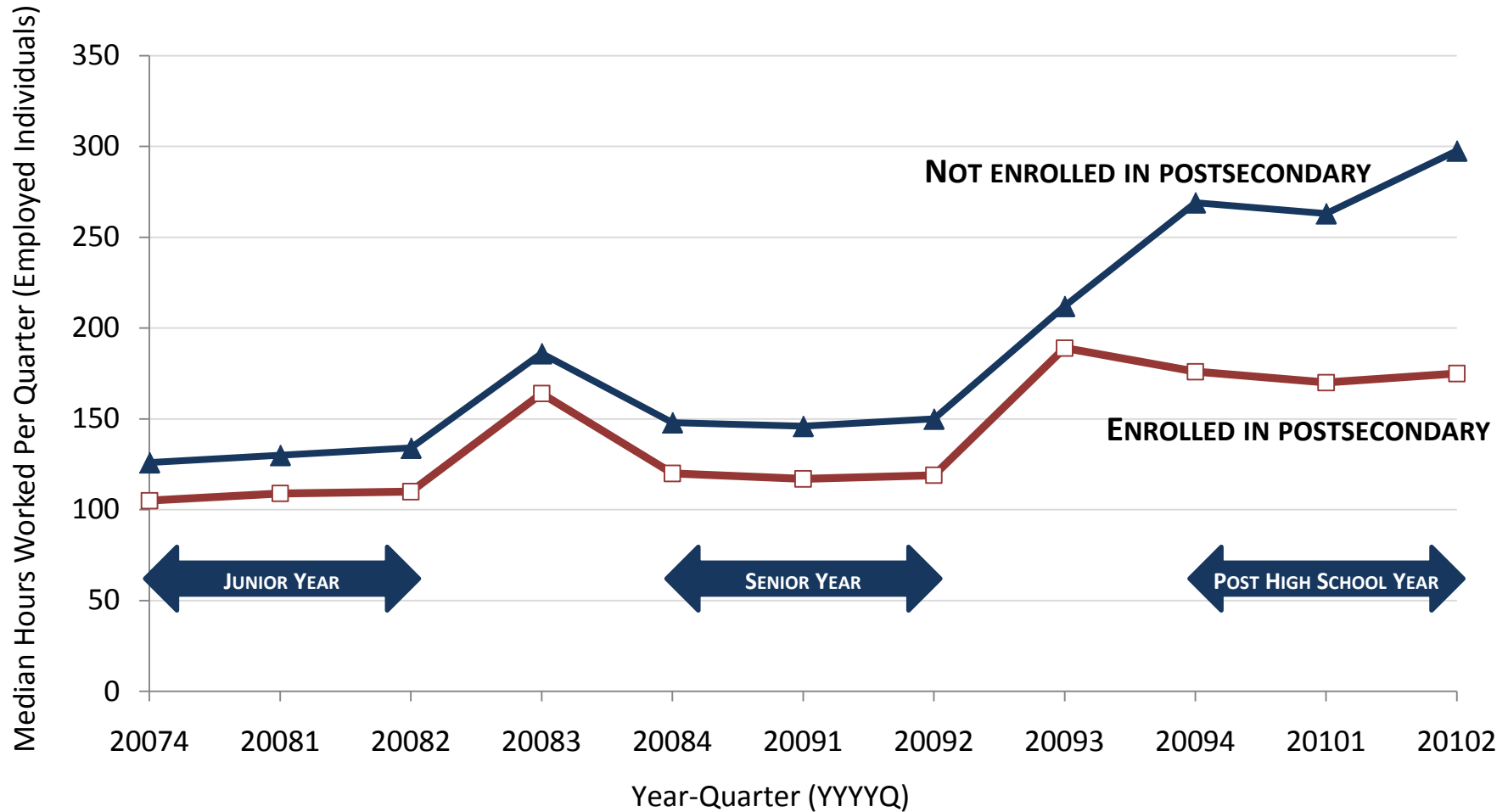
INDUSTRY SUPERSECTOR	PERCENT OF STUDENTS EMPLOYED		
	TOTAL	DURING SCHOOL YEAR	SUMMER ONLY
Natural resources and mining	3.4%	2.7%	10.5%
Construction	2.0%	1.7%	5.0%
Manufacturing	1.9%	1.8%	3.0%
Trade, transportation, and utilities	28.9%	30.1%	17.3%
Information	2.3%	2.4%	1.7%
Financial activities	1.9%	1.9%	1.5%
Professional and business services	4.6%	4.4%	6.4%
Education and health services	10.2%	10.0%	12.3%
Leisure and hospitality	37.5%	38.3%	29.8%
Other services and public administration	7.3%	6.8%	12.4%

Source: "Workforce Participation: Washington State High School Graduates, 2008-09" Washington Education Research & Data Center, February 2011.
<http://www.erdc.wa.gov/briefs/> (forthcoming)

MEDIAN HOURS WORKED

2009 HIGH SCHOOL GRADUATES

Employed During Quarter, by Post-High School Enrollment Status

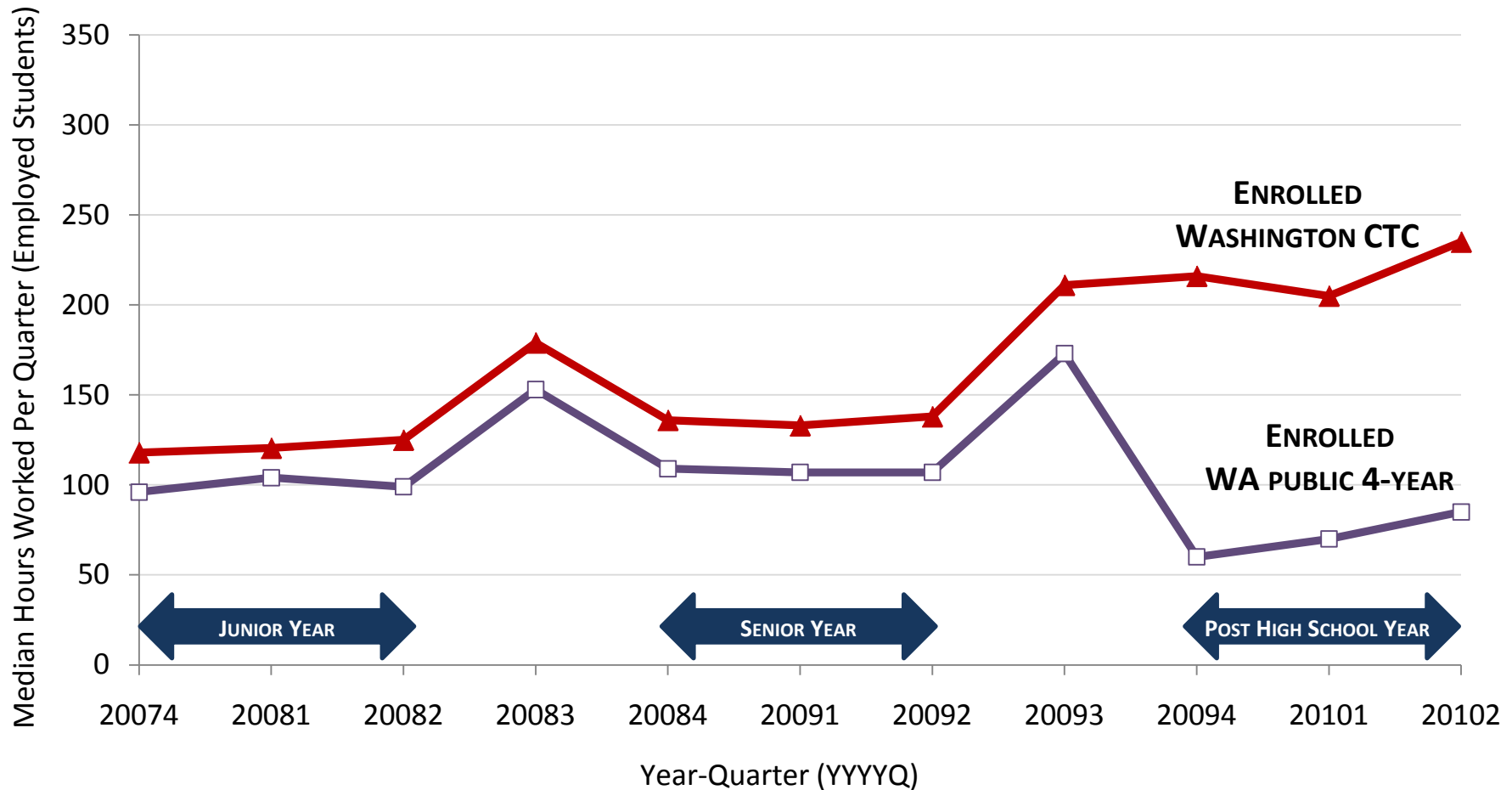


Source: "Workforce Participation: Washington State High School Graduates, 2008-09" Washington Education Research & Data Center, February 2011.
<<http://www.erdc.wa.gov/briefs/>> (forthcoming)

MEDIAN HOURS WORKED

2009 HIGH SCHOOL GRADUATES

Attending Washington Public Higher Education Institutions in Post-High School Year



MEDIAN EARNINGS

2009 HIGH SCHOOL GRADUATES

Employed During Quarter, by Post-High School Enrollment Status



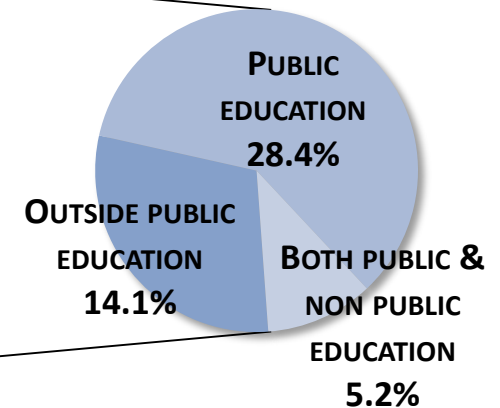
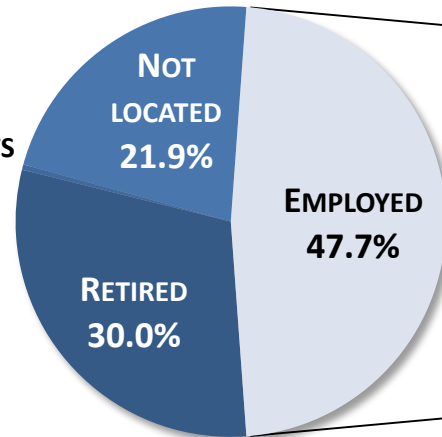
APPLICATION: TEACHERS WHO LEAVE TEACHING

Teachers who left teaching jobs matched against administrative records from Unemployment Insurance Program and Department of Retirement Systems.

2006

n=4,291

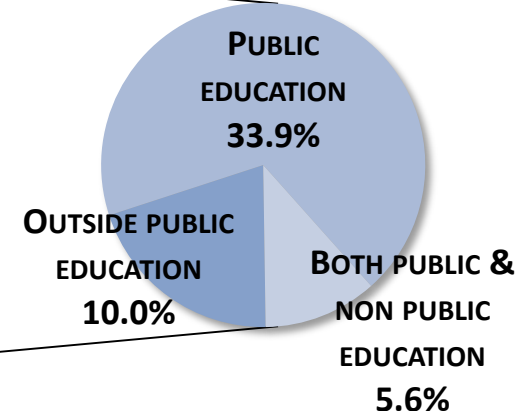
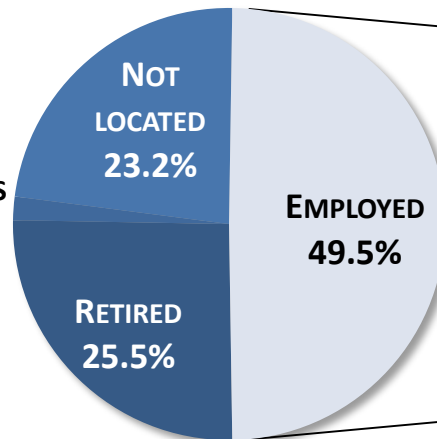
UI BENEFITS
0.4%



2008

n=3,411

UI BENEFITS
1.8%



Source: "Who Leaves Teaching and Where Do They Go?," Washington Education Research & Data Center, January 2011.

<<http://www.erd.c.wa.gov/briefs/>>

APPLICATION: TRAINING PROGRAM OUTCOMES

UI WAGE FOLLOW-UP 9 MONTHS AFTER COMPLETION

Program type <i>With examples</i>	Program Completers	Median Wages	Median Earnings
Higher-wage programs	8,793	\$20.49	\$36,948
<i>Associate Degree Nurse</i>	<i>1,663</i>	<i>\$28.11</i>	<i>\$50,306</i>
<i>Information Technology</i>	<i>1,274</i>	<i>\$16.02</i>	<i>\$27,898</i>
Middle-wage programs	4,978	\$14.11	\$24,393
<i>Medical Assisting</i>	<i>892</i>	<i>\$13.79</i>	<i>\$24,482</i>
<i>Accounting</i>	<i>730</i>	<i>\$14.90</i>	<i>\$24,987</i>
<i>Auto Diesel</i>	<i>695</i>	<i>\$13.39</i>	<i>\$23,703</i>
Lower-wage programs	3,983	\$12.23	\$19,026
<i>Administrative Support</i>	<i>1,488</i>	<i>\$12.97</i>	<i>\$21,790</i>
<i>Nursing Assistant</i>	<i>794</i>	<i>\$11.37</i>	<i>\$18,302</i>

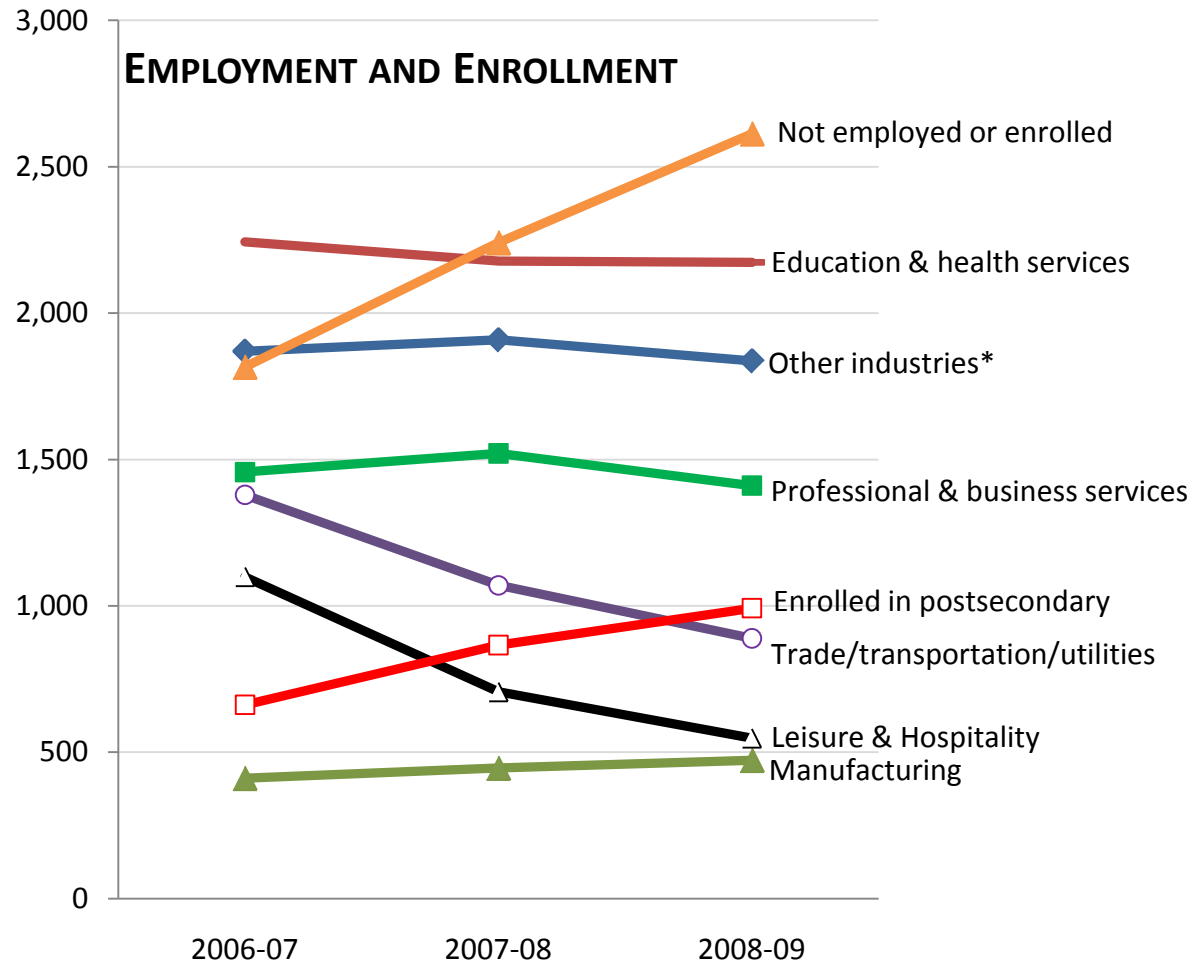
Source: *Academic Year Report, 2009-2010*, Washington State Board for Community and Technical Colleges, December 2010.
www.sbctc.ctc.edu/college/documents/0entire_report-ayr0910.1.pdf

BACCALAUREATE DEGREE OUTCOMES

DEGREE RECIPIENTS, SPRING 2006

What do bachelor's degree recipients do after graduation?

- ◆ 83% are employed in Washington at some point during the 3 years after graduation.
- ◆ 89% are either employed or enrolled in further education at some point.
- ◆ 48% are employed in same industry all three years.



*Other industries = Natural resources/mining, Construction, Information, Financial Activities, Other Services/Public Administration
 "Not employed" means no Washington UI earnings during this period.



DATA-SHARING, DATA GOVERNANCE

What is the governance process for the linked data?

Currently, a case-by-case basis

An ARRA grant project deliverable

How are requests for the linked data handled?

Currently, evaluated on a case-by-case basis

Most requests involve summary data



FUTURE EDUCATION/WORKFORCE PLANS

DROP-OUTS AND STOP-OUTS

H.S. GRADUATING CLASS COHORTS - Analysis incorporating:

Full-time/part-time enrollment status

Financial aid information

POSTSECONDARY

Routine follow-up of graduates (10 years) into employment and further education

“Swirl” study (outcomes for those who follow non-linear paths through postsecondary education)

WORKFORCE

Explore worker classification from Workers’ Compensation

Expand data sources

ADDITIONAL WORKFORCE DATA SOURCES

- ♦ **Federal Employment Data Exchange System (FEDES)** – contains federal civilian employees, U.S. Postal Service employees, and Department of Defense active duty personnel. Operated by the Jacob France Institute at the University of Baltimore. <http://www.bls.gov/web/empsit/cestn2.htm>
- ♦ **Wage Record Interchange System (WRIS)** – a multistate collaborative that facilitates the exchange of wage data among participating states. <http://www.doleta.gov/performance/WRIS.cfm>
- ♦ **Administrative Data Research and Evaluation (ADARE)** – a multi-state alliance (currently 9 state partners covering 43 percent of the U.S. civilian labor force) that facilitates access to administrative data for authorized research and evaluation purposes. Managed by the Jacob France Institute at the University of Baltimore. <http://www.ubalt.edu/jfi/adare/index.cfm>
- ♦ **Local Employment Dynamics (LED)** program – a partnership between states and the U.S. Census Bureau that provides summary information on employment and earnings at local level. <http://lehd.did.census.gov/led/led/led.html>

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